

REMARKS

Claims 1, 2, 6, 10, 11, 13, 14, 16, 17, 20, 25, and 27-38 are pending.

At the outset, Applicants would like to thank the Examiner for extending Applicants' representative an interview on March 19, 2008, to discuss the rejections in the Final Office Action. During the interview, Applicants discussed the differences between the invention and the cited references and an amendment was proposed to further clarify these differences. The differences between the claimed invention and the cited references are explained in greater detail below.

As discussed during the interview, one feature that distinguishes the embodiments of the invention from the Watanabe publication is that the invention does not perform a charging operation when the output voltage of its ultracapacitor falls below a certain level. Rather, the invention takes the remaining charge in the capacitor and amplifies it in order to drive a load. In contrast, many conventional circuits perform a charging operation under these circumstances. The Watanabe publication discloses this type of conventional circuit.

As noted in Paragraph [69], when the voltage of capacitor 8 falls below a certain level, the Watanabe circuit couples the capacitor to a DC voltage. The DC voltage is derived from DC power source 1 that is coupled to the capacitor through a bridge inverter circuit. (See Figure 1). Coupling the capacitor to the DC power source causes the capacitor voltage to be charged back up to a sufficient level. Thus, Watanabe relies on a charging operation to continue to power its load.

The claimed invention operates differently. For example, claim 1 recites that, when the voltage in an ultracapacitor falls below a first predetermined voltage, the first amplifier circuit amplifies the output voltage of the ultracapacitor independent of a charging operation of the

ultracapacitor, during a time when the load is to be driven by the amplified output voltage. To make these feature more evident, claim 1 has been amended to recite that the “the first amplifier circuit is to amplify the output voltage independent of *coupling the ultracapacitor to a DC power source during* a charging operation of the ultracapacitor and during a time when the load is to be driven by the amplified output voltage.” These features are not taught or suggested by Watanabe, e.g., Watanabe discloses coupling its capacitor to a DC power source during a charging operation when the capacitor voltage falls to an insufficient level.

These differences allow the claimed invention to achieve a number of advantages over conventional circuits like Watanabe. For example, when the capacitor voltage falls the claimed invention does not have to plug its host system (e.g., laptop computer) into an AC adaptor to be charged. However, Watanabe does which can prove to be a significant inconvenience. Also, charging may limit the user’s ability to effectively use the host system. The claimed invention would not be limited in this manner.

The Bean publication does not teach or suggest the features that distinguish claim 1 from the Watanabe patent.

At the conclusion of the interview, the Examiner indicated that the foregoing amendment would be sufficient to overcome the references cited in the Final Office Action. Furtherance of claim 1 and its dependent claims to allowance is therefore respectfully requested.

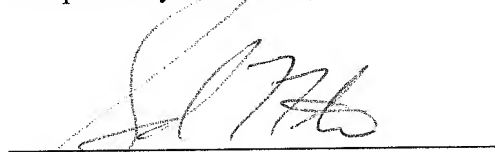
Claims 10, 14, and 25 have been amended to recite features similar to those which patentably distinguish claim 1 from a Watanabe-Bean combination. Accordingly, it is submitted that claims 10, 14, 25, and their dependent claims are allowable.

Regarding the rejection of claims 27, 28, and 35, it is respectfully submitted that the Sasaki patent does not teach or suggest the features added by amendment to claims 1 and 25.

In view of the foregoing amendments and remarks, it is respectfully submitted that the application is in condition for allowance. Favorable consideration and timely allowance of the application is respectfully requested.

To the extent necessary, a petition for an extension of time under 37 CFR § 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this, concurrent and future replies, including extension of time fees, to Deposit Account 16-0607 and please credit any excess fees to such deposit account.

Respectfully submitted,



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